Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	
Review of the Section 251 Unbundling Obligations for Incumbent Local Exchange Carriers	CC Docket No. 01-338
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	CC Docket No. 96-98
Deployment of Wireline Services Offering Advanced Telecommunications Capability	CC Docket No. 98-147

REPLY COMMENTS ON PETITIONS FOR RECONSIDERATION

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TABLE OF CONTENTS

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REPLY COMMENTS ON PETITIONS FOR RECONSIDERATION

Marconi Corporation plc ("Marconi"), pursuant to Section 1.429(g) of the Commission's Rules, hereby responds to several of the oppositions to BellSouth's petition for reconsideration of the *Triennial Review Order*.[1] Of primary concern to Marconi are the challenges to BellSouth's request that the Commission modify the Triennial Review Order so as to impose similar unbundling obligations for both fiber-to-the-curb ("FTTC") and fiber-to-the-home ("FTTH") technologies.[2] As demonstrated herein, the Commission should dismiss these

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[1] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, FCC 03-36, released August 21, 2003 ("*Triennial Review Order*"). Marconi requests that the Commission waive the ten page limit that normally applies to Reply Comments set forth in Section 1.429(g). Marconi is responding to some ten sets of comments in a consolidated pleading, rather than separate responses as to each. In addition, the Commission will benefit from a full and complete record with regard to this important subject. Thus, waiver of the ten page limit will well serve the public interest.

[2] The *Triennial Review Order* uses the nomenclature fiber-to-the-home ("FTTH"), although in the September 17th *Errata* the Commission modified Section 54.319(a)(3) to eliminate references to *residential* end users. As a result, the label "FTTH" may be somewhat

unfounded oppositions and grant BellSouth's petition to reconsider the differing treatment accorded FTTH and FTTC. Both architectures provide equivalent "next generation" advanced services and thus equally fulfill the goals of Section 706 of the Telecommunications Act of 1996. In addition, the Commission's impairment analysis produces the same result for both FTTC and FTTH -- competing carriers will not be impaired without access to either of these architectures as unbundled network elements ("UNEs")

I. Introduction and Summary

Marconi is one of the world's leading suppliers of access technology for broadband services, and thus highly interested in this issue due to the impact of regulation on the investment decisions of the incumbent and competitive carriers. Marconi is particularly well qualified to address the issues concerning FTTC and FTTH, because Marconi manufactures and sells both types of systems. Marconi is concerned because the disparate unbundling obligations imposed on FTTC and FTTH under the *Triennial Review Order* will influence an incumbent carrier's decision to deploy one technology versus the other. Marconi believes that the carrier's decision as to whether to deploy FTTC or FTTH should be driven by the different engineering and economic characteristics of these two architectures under different real-world scenarios, not unduly influenced by arbitrary regulatory classifications. In addition, in some cases the more extensive unbundling obligations imposed on FTTC will create disincentives for deployment of that architecture in cases in which FTTC (but not FTTH) is economical, so that subscribers will be denied access unnecessarily to advanced services.

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under inclusive. Nonetheless, to reflect consistency with the usage in the *Triennial Review Order*, Marconi in this pleading will use the Commission's FTTH terminology.

Despite the ill-informed claims to the contrary, FTTH and FTTC provide equivalent service capabilities – both allow the carrier to offer voice, high-speed data and multi-channel video, and thus both allow the incumbent or competitive carrier deploying FTTC and FTTH equivalent revenue opportunities. In addition, incumbent carriers have no significant cost advantage over competitive carriers in the deployment of either FTTC or FTTH. Finally, both FTTH and FTTC offer "next generation services" and thus both fulfill Congress' directive to the Commission to eliminate disincentives to the deployment of advanced services.

Several of the parties opposing BellSouth's petition decry the lack of evidence in the record on FTTC capabilities and characteristics.[3] As BellSouth explained in its petition for reconsideration, the Commission did have some information available to it concerning FTTC.[4] However, the failure of parties (including Marconi) to anticipate and submit comments addressing comparisons between FTTH and FTTC is a result of the fact that in the Notice of Proposed Rulemaking the Commission deemed the two architectures equivalent:

> For example, should we distinguish between the **deployment of fiber optic facilities directly to the home (*i.e.*, "fiber to the curb")** and fiber optic facilities only to remote terminals?[5]

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[3] E.g., AT&T Opposition at p. 12-13; Covad Opposition at p. 4; NuVox Opposition at p. 3; Allegiance Opposition at p. 6; ALTS Opposition at p. 9; Sprint Opposition at p. 9.

[4] BellSouth Reconsideration Petition at p. 4. *See also* High Tech Broadband Coalition ("HTBC") Comments at p. 8.

[5] *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, FCC 01-361, Released December 20, 2001 at ¶ 50 (emphasis added). The Commission's February 20, 2003 Press Release discussing the Triennial Review decision referred tersely to fiber-to-the-home and "hybrid loops" ("where incumbent LECs deploy fiber further into the neighborhood but short of the customer's home"), and the attachment was even less specific. However, in light of the Sunshine restrictions, Marconi was prohibited from supplementing the record once it appeared that the Commission might attach different unbundling burdens on FTTH and FTTC. After the text was released, Marconi did meet with Commissioners and their staff to bring this issue to their attention, and the record reflects those *ex parte* meetings.

Given the language in the NPRM equating the two, this reconsideration proceeding is the first opportunity for Marconi to submit comments reflecting the now relevant information.[6]

The Commission's brief and conclusory "discussion" concerning the distinctions between FTTH and "hybrid loops" (including FTTC) in a few footnotes was not a focused analysis based on a full and accurate record. Thus, there is no merit to the opponents' simplistic argument that reconsideration is not warranted because the Commission has already addressed this issue.[7] Marconi urges the Commission on reconsideration to modify the *Triennial Review Order* and its Rules to afford the same unbundling obligations with regard to FTTC and FTTH.

II. Fiber-to-the-Curb truly is an Advanced System with Capabilities Equivalent to Fiber-to-the-Home

FTTC technology allows the carrier to provide tremendous amounts of capacity to the customer today using a fiber to a pedestal located within 500 feet of the subscriber's premises and copper lines (either twisted copper pairs or a combination of twisted copper pairs and coaxial cable) for the connection between the pedestal and the network interface device at the customer's premises. Speeds of 10 megabits per second ("Mbps") to each subscriber over FTTC have been deployed to hundreds of thousands of subscribers already in addition to 750 MHz multi-channel video delivered over a separate wavelength at 1550nm. Speeds of 100 Mbps to each subscriber over FTTC are possible today and technology that provides speeds of 1000 Mbps (1 gigabit per

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[6] Thus, AT&T's claim (at p. 2 of its Opposition) that such new information is barred under Section 1.429(b) is wrong.

[7] *E.g.*, PACE Opposition at p. 8; MCI Opposition at p. 3; RICA Opposition at p. 4.

second ("Gbps")) to each subscriber over copper loops up to 500 feet in length is also available.[8] FTTC thus can readily support the "triple play" services – voice, high speed data and multi-channel video – and also has the capability for even higher speeds to accommodate future service needs that might develop. Thus, the claims of some of the parties opposing BellSouth are simply wrong when they assert that FTTC is an intermediate, inferior architecture.[9]

The reason that FTTC can provide such capacity is a fairly simple law of physics – over short distances (*i.e.,* approximately 500 feet) copper exhibits very little impedance, thereby enabling significant capacity/bandwidth. In a chart included in Marconi's *ex parte* submissions in this proceeding (and replicated in BellSouth's Petition), Marconi graphically depicted the relationship between distance and capacity for copper loops. A copy of that chart is also appended hereto, and clearly demonstrates that there is a steep increase in capacity for untreated copper right around 500 feet.

It is this "law of physics" that has led to adoption of 500 feet as the standard for maximum copper loop length in FTTC, and as such is specified in the GR-909 FTTC standard issued by Telcordia. It is for this reason that BellSouth's FTTC deployments include a copper drop of no more than 500 feet. Thus, the opponents' claims that BellSouth has cynically and arbitrarily suggested a 500 foot limit merely to obtain *post hoc* regulatory sanctioning of its past

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[8] Marvell Semiconductor has developed robust PHY transceiver technology devices that greatly exceed the requirements of the IEEE Gigabit Ethernet standard ("GigE"). While GigE is a four pair standard, these devices will also automatically adapt to Fast Ethernet in the 100 Mbps two pair environment typical of FTTC. According to Marvell, their products provide Full duplex Gigabit transmission up to 180 meters using Category 5 cable while maintaining a Bit Error Rate of 10^{-10} or better. This represents an 80% increase in cable distance relative to the 1000BASE-T standard.

[9] *E.g.,* PACE Opposition at p. 10; MCI Opposition at p. 6; Allegiance Opposition at p. 9; ALTS Opposition at p. 17.

investment decisions has no basis in fact.[10] The 500 foot limit suggested by BellSouth merely reflects the industry standards, which are the result of the laws of physics and the resulting basic engineering characteristics of FTTC architectures.

Several of the opponents urge the Commission to reject the proposed changes because the current definition in the Commission's Rules of FTTH presents a "bright line."[11] To the extent that creating a bright line is critical, the proposed definition, by specifying a limit of 500 feet, also creates a "bright line." Moreover, the Commission can add additional certainty to the definition of FTTC that would be accorded equivalent unbundling obligation to those assigned to FTTH by including service requirements (the ability to offer voice, high speed data and multi-channel video) in the "definition" of FTTC deployments that would be treated the same as FTTH.[12] While Marconi does not believe that an additional services component in the definition FTTC is essential – after all, the Commission's definition of FTTH does not incorporate any such minimum services capability – Marconi appreciates the desire of all of the parties to distinguish between FTTC (which provides services equivalence to FTTH) and other "hybrid" fiber/copper technologies (such as remote terminals) that do not presently offer such services equivalence. A definition that incorporates both the 500 foot limit and the "triple play" services

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[10] *Cf.*, NuVox Opposition at p. 4; PACE Opposition at p. 9; Allegiance Opposition at p. 9; ALTS Opposition at p. 14.

[11] *E.g.,* Covad Opposition p. 5; ALTS Opposition at p. 14 . Marconi disagrees with those parties' claims that the FTTH creates a bright line. As the reconsideration petitions and comments thereon demonstrate, there is ambiguity as to the application of the FTTH definition in the case of FTTH deployments to multi-dwelling units ("MDUs").

[12] Both BellSouth and the HTBC include proposals for such service conditions. BellSouth Reconsideration Petition at pp. 8-9; HTBC Comments at p. 10. In addition, the NuVox Opposition at p. 9 also suggests that the Commission incorporate a services component to the FTTC definition.

component provides a "belt and suspenders" definition that would ensure that only FTTC architectures offering "advanced services" were accorded the additional unbundling relief.[13]

The high capacity made possible by the elimination of long copper loops in FTTC architectures means that FTTC can provide all of the services that can be offered by FTTH. Although in theory an all-fiber loop provides nearly limitless capacity,[14] FTTH deployments do not incorporate the sophisticated electronics (such as dense wavelength division multiplexing (DWDM) equipment) at each individual premise that would be necessary to support such "limitless" capacity. In fact, FTTH utilizes passive optic technologies, which provide 622 Mbps speeds.[15] However, under the FTTH architecture typically deployed today, that 622 Mbps capacity is shared among 32 homes, so that if all of the subscribers are using their network simultaneously (for example, during the evening to access multi-channel video), then each subscriber has access to "only" 17.3 Mbps of capacity. Thus, FTTC loops that have the capability to provide 100 Mbps capacity to each home (with 1 Gbps capabilities "on the horizon") provides as much or more capacity to each subscriber as FTTH. The opponents are wrong when they claim that FTTH provides much greater capacity than FTTC,[16] or that FTTC does not provide services equivalency to FTTH.[17]

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[13] Insofar as the definition of FTTC includes both a 500 foot limit and a services requirement, there would not be problems with any ambiguity as to which FTTC architectures would qualify for unbundling obligations equivalent to FTTH. *Cf.*, Allegiance Opposition at p. 11 (service conditions fraught with ambiguity).

[14] The NuVox Opposition refers at p. 5 to "infinite" capacity for fiber loops.

[15] NuVox Opposition at p. 9; AT&T November 5, 2003 *Ex Parte* Letter at p. 2.

[16] *Cf.*, RICA Opposition at p. 2 (fiber provides incomparably more capacity than any other facility or combination of facilities, even where copper brought close to the premises).

[17] *E.g.,* PACE Opposition at p. 8.

Moreover, even FTTH loops utilize copper insofar as the in-home wiring connecting the subscribers' devices now (and for the foreseeable future) consists of copper.[18] Thus, both FTTC and FTTH utilize equivalent interfaces with the subscribers' information appliances. For video and data services the typical FTTH device provides two interfaces. A copper coaxial cable is used to connect the Optical Network Terminal (ONT) to the subscriber's television set or Set Top Box. This same interface at the same transmission rate is available and deployed today on FTTC systems. Both FTTC and FTTH systems provide analog transmission of either NTSC or digital video signals over a 750 MHz or 870 MHz infrastructure in exactly the same way. The second interface provided for video and data on FTTH is typically a 10/100 Mbps ethernet port. Today this port is not typically used for video services because the RF-based approach is preferred. The 10/100 Mbps interface consists of two twisted pairs of copper running from the fiber termination to the subscriber's PC, switch or router. In the case of FTTC, this architecture is also supported, and has already been deployed to hundreds of thousands of subscribers.[19] In sum, FTTC provides the same advanced services capability as FTTH.

III. The Impairment Analysis is the same for Fiber-to-the-Curb and Fiber-to-the-Home

The Commission examined in some detail the newly adopted impairment standard as applied to FTTH loops and determined that competing carriers were not impaired without access

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[18] It is this aspect of FTTH architecture that necessitates employment of an electrical-optical conversion unit at each home in a FTTH deployment, which affects the relative economics of FTTH versus FTTC.

[19] Today's FTTH ONT devices, which provide coaxial and twisted pair interfaces to home appliances, are no different functionally than an FTTC system supplying the same interfaces. When FTTH ONTs provide 1 Gbps interfaces to home PCs, this will likely utilize the standard 1000BaseT interface with 4 twisted pairs. Commercially available components can provide this interface at up to 180 meters, so that FTTC will provide the same services as FTTH as greater capacity is deployed.

to the broadband capabilities of FTTH loops (and not impaired without access to the narrowband voice capabilities in greenfield deployments).[20] Marconi believes that a similar assessment of FTTC architectures and deployments will result in the same conclusion. As an initial matter, it is not clear which side has the burden of "proving" non-impairment. To the extent the opponents suggest that the burden is on BellSouth,[21] they imply that there is a presumption in favor of unbundling – a position that has been rejected by the Courts.[22] In any event, Marconi believes the issue is moot because the same factors that resulted in the Commission finding non-impairment in the case of FTTH are present for FTTC.

As discussed above, FTTC provides enormous capacity and services equivalency to FTTH. Thus, with regard to the revenue opportunities that the Commission examines in conducting its impairment analysis, FTTC (like FTTH) supports voice, high speed data and multi-channel video. FTTH and FTTC both offer greater revenue potential than other fiber/copper loops.[23] Moreover, these capabilities and revenue opportunities are not mere

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[20] *Triennial Review Order* at ¶¶ 272-284.

[21] *E.g.*, Allegiance Opposition at p. 18.

[22] *Iowa Utilities Board v. FCC*, 525 U.S. 366, 388 (1999); *USTA v. FCC*, 290 F.3d 415 (D.C. Cir. 2002).

[23] ALTS at p. 14 of its Opposition cynically asks whether the development of technology capable of providing similar capacity over home-run copper would lead to the removal of unbundling for such loops. Actually, the simple answer is that the Commission is committed to periodically reviewing its unbundling rules, so that technological breakthroughs that dramatically alter the cost or revenue factors could affect the degree to which competitive carriers are impaired without access to particular network elements. Under the hypothetical suggested by ALTS, the Commission could very well determine that competitive carriers were no longer impaired without access to home-run copper loops, or that at the very least the ILECs were not required to unbundled the new technology that made it possible to provide the new, advanced services over home-run copper loops.

theoretical constructs,[24] but have already been exhibited in a wide variety of deployments. Marconi has already shipped FTTC systems to two ILECs (BellSouth and Sprint) who are passing an estimated 490,000 homes with video, high-speed data or a combination of both.[25] Perhaps more importantly from the perspective of the Commission's impairment analysis, Marconi has shipped FTTC systems to competitive carriers, who have deployed these systems in both "overbuild" and "greenfield" situations. Grande Communications and Knology are providing voice, high-speed data and multi-channel video services using Marconi's FTTC systems to approximately 75,000 homes passed in "overbuild" deployments. In addition, Marconi has shipped FTTC systems to other competitive carriers, including Litestream and FCI Broadband (formerly Futureway), that have deployed these systems in greenfield situations. Finally, Marconi has shipped FTTC systems to one major MSO (AT&T Broadband, now Comcast), that is using this technology to provide voice, high-speed data and multi-channel video services to some 24,000 homes passed. Thus, contrary to the claims of some of the parties opposing BellSouth's petition for reconsideration,[26] competitive carriers (as well as ILECs) have deployed FTTC systems with "triple play" revenue opportunities, demonstrating the absence of impairment.

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[24] *Cf.*, AT&T Opposition at p. 13.

[25] AT&T and PACE are simply wrong in claiming that BellSouth has not deployed FTTC systems with voice, high-speed data and multi-channel video capabilities. *Cf.,* AT&T Opposition at p. 10; PACE Opposition at p. 10. Marconi has additionally shipped to these same ILECs a significant amount of FTTC systems that are presently configured to provide only voice services, but those FTTC systems are readily capable of being upgraded to provide "triple play" services. The economics, regulatory environment and other competitive factors present in a particular situation will influence the services the carrier offers.

[26] *E.g.,* AT&T Opposition at p. 14; Allegiance Opposition at p. 6.

The opponents' claims that competitive carriers are impaired are based on allegations of supposed advantages enjoyed by the ILECs in deployment of FTTC. These hypothetical advantages are significantly overstated, while the opponents ignore the advantages enjoyed by the competitive carriers (*e.g.*, lower labor costs, the ability to "cherry pick" deployments rather than serve all as the carrier of last resort). An ILEC cannot incrementally and simply add a little fiber and a pedestal unit to an RT deployment and thereby convert that system to an FTTC system with triple play capabilities.[27] If the ILEC's network was not designed initially as an FTTC architecture, then significant re-engineering of the RTs and fiber-feeder must occur in order to support FTTC.[28]

Other supposed ILEC advantages are the result of the difficulties faced by the competitive carriers in obtaining the necessary government permits to deploy their systems.[29] As explained above, the ILECs too must undertake construction to deploy FTTC systems, and they face the same obstacles as the competitive carriers. The opponents apparently believe that the ILECs operate in a world of "hypothetical most efficient networks" where such problems can merely be assumed away as reflected in the opponents' TELRIC models – the reality is that the ILECs operate in the real world and must confront the same issues as the competitive carriers.

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[27] *Cf.*, Allegiance Opposition at p. 7.

[28] Nor is it clear that the ILEC can simply use the current copper loops for the last 500 feet, insofar as the copper loops may need to be upgraded or relocated.

[29] *E.g.*, AT&T Opposition , Supplemental Declaration at ¶ 25. To the extent that CLECs believes they are being treated discriminatorily by municipalities, those concerns should be addressed directly by the Commission or Congress, rather than by imposing unnecessary unbundling obligations on the ILECs, particularly because those unbundling obligations create disincentives to investments that could deprive Americans of access to advanced services.

The opponents also contend that the Commission has already found greater impairment for "hybrid" loops than FTTH, and that FTTC falls within the definition of a "hybrid" loop.[30] According to the opponents' overly simplistic analysis, because FTTC loops contains copper, they must be classified as "hybrid" loops, and as such, impairment can be presumed. This argument ignores the significant differences in capacity that render FTTC unlike other "hybrid" technologies such as fiber-to-the-remote terminal.[31] FTTH and FTTC, unlike the other current fiber/copper architectures, can both support 100 Mbps (or greater) speeds, and thus provide greater revenue opportunities.

Marconi acknowledges that there are some differences between FTTC and FTTH (although not in services capabilities). For example, the ONU for converting optical to electrical signals is located at the pedestal and shared in FTTC deployments, but must be deployed to each premise under FTTH.[32] Likewise, there are differences in the powering capabilities in the event of a blackout, with a need for backup batteries at each home in the case of FTTH. In addition, there are likely to be cost differences a carrier faces in choosing between FTTC and FTTH.[33]

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[30] *E.g.,* Allegiance Opposition at p. 15; MCI Opposition at p. 8.

[31] *Cf.,* Covad Opposition at p. 7; Sprint Opposition at p. 7.

[32] *E.g.,* NuVox Opposition at p. 6. The MCI Opposition at p. 4 mistakenly asserts that the difference between FTTC and FTTH is that only in the case of FTTC are there any active electronics between the customer and the ILEC's central office, thus making FTTH cheaper and more reliable. In fact, under both architectures there is a need to install active electronics for the optical to electrical conversions; it is just that in the case of FTTH those electronics must be deployed at each premises. In fact, in the case of FTTH, the ILEC will have to deploy, own and maintain up to ten times the amount of optical-to-electrical terminals than in the FTTC case.

[33] *Cf*., Covad Opposition at p. 4-5; ALTS Opposition at p. 17; Allegiance Opposition at p. 10. The absence of evidence in the record on the relative costs between FTTC and FTTH is irrelevant to the Commission's impairment analysis, because it only affects the ILEC's choice between the two technologies. Both ILECs and CLECs face the same costs vis-à-vis each other, because both can deploy (and have deployed) FTTC as well as FTTH.

Marconi believes, however, that the ILEC should choose which of these technologies to deploy in any given situation based on these different engineering and cost considerations. Those differences between FTTC and FTTH do not affect the impairment analysis between ILECs and CLECs, because with respect to the relevant characteristics – the ability to provide advanced services and take advantage of expanded revenue opportunities – FTTC and FTTH are the same. To the extent that the Commission imposes different unbundling obligations, however, the Commission distorts the ILEC's choice of one technology versus the other, notwithstanding the absence of impairment in either case.

IV. The Other Factors the Commission Considers in Determining whether Unbundling should be Imposed also Suggest that Similar Treatment of FTTC and FTTH is Appropriate

In deciding what elements to unbundle, the Commission recognizes that Section 251(d)(2)'s "at a minimum" language obligates the Commission to examine additional factors and policies besides impairment. In the case of FTTC, like FTTH, these additional factors reinforce the need to reduce the unbundling obligations attached to FTTC. One significant consideration is the goal enunciated by Congress in Section 706 of the Telecommunications Act of 1996 of fostering the widespread deployment of advanced services. FTTC, with the capability of supporting data rates of 100 Mbps or more, certainly qualifies as an "advanced service."

Unbundling obligations create disincentives for new investment and impose costs. When evaluating whether or not to invest, a carrier takes into account potential revenues that could result from the deployment of the new equipment. Unbundling will generally reduce the financial incentives because retail subscriber revenue is replaced by significantly lower TELRIC-based UNE fees. In addition, unbundling increases operational costs as well as the cost of equipment, which must generally be re-designed to accommodate the regulatory-imposed

interfaces. As noted above, the increased costs of unbundling faced solely by FTTC distort the ILEC's choice between FTTC and FTTH. Equally important, the additional costs of unbundling can cause a carrier to decide not to deploy FTTC, even though deployment of FTTC in the particular situation would be warranted but for the unbundling costs and adverse revenue effects. As demonstrated by SBC's significant scaling back of Project Pronto in response to the increased regulatory burdens and costs, the ILECs' investment decisions clearly depend on the costs and revenue effects of unbundling.[34]

The comments filed by the opponents of BellSouth's petition do not refute the adverse impact unbundling has on investment incentives, and in fact in some ways reinforce the need for relief. AT&T indicates that it has no incentive to invest in new technology without some basis for sufficient revenue expectations:

> The final option open to AT&T or another CLEC is simply to anticipate the delays and build facilities well in advance of customer needs, much the same way the ILECs originally built their networks. Unfortunately, the realities of the market, including the CLECs' current inability to obtain capital, demonstrate that this "build it and they will come" option is simply the road to insolvency.[35]

Instead, AT&T and the other opponents would prefer that the ILECs make those investments so that the competitive carriers need not expend any capital of their own. However, as the significant decline in telecommunications investment over the last few years has demonstrated, the ILECs do not have unlimited access to capital or the luxury of making investment decisions without regard to revenue opportunities. The opponents' assumptions that the ILECs have

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[34] *Cf.*, PACE Opposition at p. 11.

[35] AT&T Opposition, Supplemental Declaration at p. 12.

unlimited resources,[36] or that they will make the investments whether or not they will be profitable,[37] have no basis in fact.

As several of the opponents observe, incumbent carriers like BellSouth have deployed fiber in their networks, and in some instances have extended the fiber deep into the network under FTTC and FTTH architectures.[38] However, the Commission cannot simply extrapolate from those previous investment decisions that BellSouth will continue to make such investments. The previous investment decisions incorporated BellSouth's expectations of what the Commission would do with regard to relief from unbundling, since the Triennial Review Order was only recently released.[39] Those "expectations" have now been replaced by specific unbundling obligations, including the current disparate treatment of FTTC and FTTH, and those new rules will be factored into future investment decisions.

Moreover, even where BellSouth deploys fiber further into the network, the unbundling rules will impose disincentives for the additional expenditure of funds necessary for full advanced services capabilities. The case for deployment of FTTC or FTTH will vary, depending on demographics, customer concentration, terrain and numerous other variables that affect

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[36] *E.g.*, ALTS Opposition at p. 16 (ILECs can simply set monopoly rates to extract revenues from captive customers).

[37] *E.g.,* ALTS Opposition at p. 15, asserting that investment in FTTH will go forward regardless of FCC conclusions because economic and technological efficiency require it; ALTS ignores the fact that regulatory burdens such as unbundling affect the "economics" of any investment.

[38] *Cf.*, NuVox Opposition at pp. 7-8; MCI Opposition at p. 10; Allegiance Opposition at p. 12; ALTS Opposition at p. 6.

[39] The AT&T Opposition's criticism at pp. 9-10 of the ILECs' failure to deliver advanced services more broadly in response to the Commission's decision in the *Triennial Review Order* to remove broadband services unbundling on fiber facilities ignores the fact that the text was only released a few months ago, and services enhancement cannot occur instantaneously.

deployment costs and revenue expectations. To the extent the Commission retains the unbundling obligations on FTTC, it will increase the costs and decrease the revenue opportunities, thereby rendering FTTC "uneconomic" for some communities. Congress did not instruct the Commission to foster the availability of advanced services in a few, select markets – the "low hanging fruit" – but instead directed the Commission in Section 706 to facilitate the deployment of advanced services to all Americans.

V. Conclusion

According to MCI, the Commission's goal is to provide "the incumbent LECs incentives to deploy true FTTH in their networks."[40] Marconi strongly disagrees. The Commission should create incentives for the deployment of advanced services without regard to the particular technology used. Moreover, as demonstrated herein, FTTC and FTTH similarly provide "advanced services" with speeds of 100 Mbps or more. Thus, the Commission can help extend the availability of advanced services by reducing the unbundling obligations on FTTC in the same manner it did for FTTH.

Respectfully submitted,

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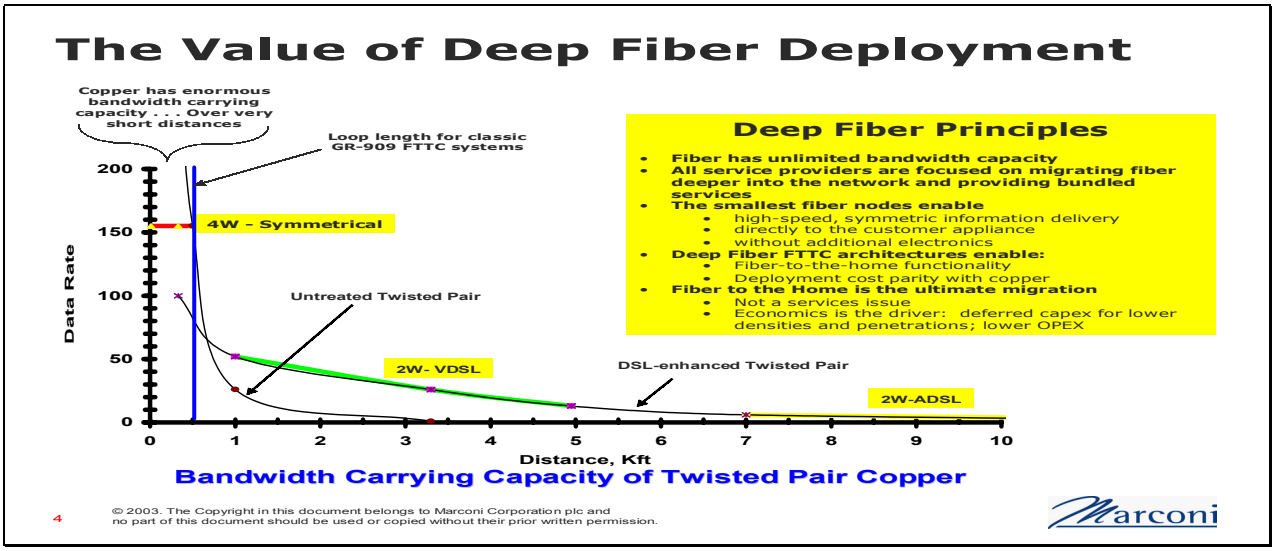
[40] MCI Opposition at n. 21.

Attachment
Chart from Marconi Ex Parte



CERTIFICATE OF SERVICE

I, Ernestine M. Screven, do hereby certify that on this 17th day of November 2003, a copy of the foregoing Reply Comments of Marconi on Petitions for Reconsideration was sent by United States mail, first-class postage prepaid to the following:

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